REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3 and 6-27 are pending in the present application. Claims 4 and 5 have been cancelled and claims 1, 3, 6-9, 13-16, 18-22 and 25-27 have been amended by the present amendment.

In the outstanding Office Action, claims 1-27 were rejected under 35 U.S.C. § 112, second paragraph; claims 1 and 3-20 were rejected under 35 U.S.C. § 102(b) as anticipated by Kremer; and claims 2 and 21-27 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kremer.

Regarding the rejection of claims 1-27 under 35 U.S.C. § 112, second paragraph, the appropriate claims have been amended in light of the comments noted in the outstanding Office Action. Further, regarding the need for omitted elements such as the need for carrying out the switching, means for transmitting/receiving the signals and including functional operation language, it is respectfully noted the pending claims are method claims. Further, the details of the protection request and switching is disclosed in the dependent claims (see dependent claims 9-13, for example). Accordingly, it is respectfully requested this rejection be withdrawn.

Claims 1-27 stand rejected under 35 U.S.C. § 102(b) as anticipated by Kremer. This rejection is respectfully traversed.

Independent claim 1 has been amended to include subject matter similar to that recited in claims 4 and 5. In particular, amended independent claim 1 is directed to a method for controlling a signal path in an optical transmission system in which a second service signal path includes an add-drop & through path and supports a through path, an east-west add-drop & through path, and a west-east add-drop & through path when the system is operating in an ADM (Add Drop Mode).

In a non-limiting example, the two far-right boxes in Fig. 4A illustrate an add-drop & through path. As compared with the background art of Figure 3A, it can be seen that the system according to the present invention includes a through path during the add-drop mode. Note, in the two far-right boxes of Fig. 3A, there is no through path during the add-drop path mode. Thus, in one example of the present invention, in the add-drop & through path, a path signal received from the east is dropped to a subscriber service processing unit 30 (see Fig. 1), the path signal received from the subscriber service processing unit 30 is added to the west, and the path signal received from the west has a path passed through the east and a path of the opposite direction. At this time, the former path is called an east-west add-drop & through path, and such a path configuration is called a "round." Thus, the present invention can implement a one-to-one path configuration in which a path signal is added to system 1 and is dropped to system n, as well as a one-to-one path configuration in a linear add-drop multiplex network (see page 9, lines 1-10).

Regarding the subject matter recited in claims 4 and 5, the outstanding Office Action indicates Kremer teaches add-drop multiplexers capable of through pass and add/drop

functions and cites col. 3, lines 21-34. However, it is respectfully noted that Kremer merely teaches a conventional add-drop system, but does not teach a second service signal supporting a through path, an east-west add-drop & through path and a west-east add-drop & through path when the system is in an add-drop mode. Rather, Kremer merely teaches the conventional add-drop system shown in the two far-right boxes of Fig. 3A.

Accordingly, it is respectfully submitted independent claim 1 and each of the claims depending therefrom are allowable.

Further, the rejection of claims 2 and 21-27 under 35 U.S.C. § 103(a) as unpatentable over Kremer is moot as claim 1 has been amended to include subject matter similar to that recited in claims 4 and 5.

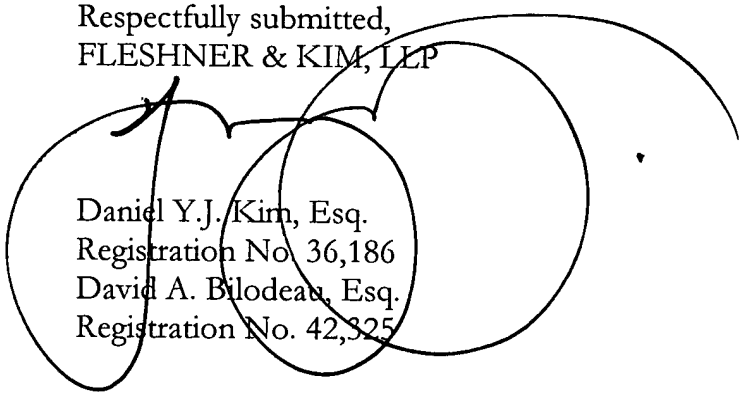
Further, the specification and abstract have been amended to correct minor informalities, and no new matter as been added.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned agent, **David A. Bilodeau**, at the telephone number listed below. Favorable consideration and prompt allowance are earnestly solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



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ABSTRACT OF THE DISCLOSURE

A signal path control method is provided to carry out a signal path provision and auto protection in an optical transmission system. In the signal path control method in an optical transmission system according to the present invention, the path is provided and controlled by dividing the same into a subscriber service path for providing voice-oriented services as in the conventional art and a new subscriber service path for providing new high-speed/very high-speed data services~~, said~~. The new subscriber service path ~~including~~ includes a through path, add-drop path, ring add-drop path, east-west add-drop & through path and east-west add-drop & through path.